

## 2.17 Capability Period

Six month periods which are established as follows: (1) from May 1 through October 31 of each year (“Summer Capability Period”); and (2) from November 1 of each year through April 30 of the following year (“Winter Capability Period”).

### 2.17a [reserved for future use]

### 2.17b Capability Year

A Summer Capability Period, followed by a Winter Capability Period (*i.e.*, May 1 - April 30).

## 2.18 Capacity

The capability to generate or transmit electrical power, measured in megawatts (“MW”).

### 2.18a Capacity Limited Resource

A Capacity Resource whose ability to supply Energy above its normal upper operating limit is constrained by operational or plant configuration characteristics. Capacity Limited Resources must register and justify their capacity limiting characteristics. Capacity Limited Resources may limit the hours that energy is available on a daily basis above their bid in upper operating limit; provided however, a Capacity Limited Resource may limit the hours that Energy is available above its bid in upper operating limit to no fewer than four hours per day in months in which they have sold such capacity as Installed Capacity to an LSE in the NYCA.

### 2.18<sup>ba</sup> CARL Data

Control Area Resource and Load (“CARL”) data submitted by Control Area System Resources to the ISO.

## 2.19 Centralized Transmission Congestion Contracts (“TCC”) Auction (“Auction”)

All Customers shall comply with all applicable federal, state and local laws, regulations and orders.

#### **4.9 Security Constrained Unit Commitment (“SCUC”)**

Subject to ISO Procedures and Good Utility Practice, the ISO will develop a SCUC schedule over the Dispatch Day using a computer algorithm which simultaneously minimizes the total Bid Production Cost of: (i) supplying power or Demand Side Resources to satisfy accepted purchasers’ Bids to buy Energy from the Day-Ahead Market; (ii) providing sufficient Ancillary Services to support Energy purchased from the Day-Ahead Market; (iii) committing sufficient Capacity to meet the ISO’s Load forecast and provide associated Ancillary Services; and (iv) meeting Bilateral Transaction schedules submitted Day-Ahead. The computer algorithm shall consider whether accepting Demand Reduction Bids will reduce the total Bid Production Cost. The schedule will include commitment of sufficient Generators and/or Demand Side Resources and/or Interruptible Load to provide for the safe and reliable operation of the NYS Power System. In cases in which the sum of all Bilateral Schedules and all Day-Ahead Market purchases to serve Load within the NYCA in the Day-Ahead schedule is less than the ISO’s Day-Ahead forecast of Load, the ISO will commit resources in addition to the reserves it normally maintains to enable it to respond to contingencies. The purpose of these additional resources is to ensure that sufficient Capacity is available to the ISO in real-time to enable it to

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meet its Load forecast (including associated Ancillary Services). In addition to all Reliability Rules, the ISO shall consider the following information when developing the SCUC schedule:

(i) Load forecasts provided to the ISO and adjusted as required by the ISO; (ii) Ancillary Service

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requirements as determined by the ISO; (iii) Bilateral Transaction schedules; (iv) price Bids and operating Constraints submitted for Generator or Demand Side Resources; (v) price Bids for Ancillary Services; (vi) Decremental Bids for Bilateral Transactions; (vii) Ancillary Services in support of Bilateral Transactions; and (viii) Bids to purchase Energy from the Day-Ahead Market. The SCUC schedule shall list the twenty-four (24) hourly injections for: (a) each Generator or Demand Side Resource whose Bid the ISO accepts for the following Dispatch Day; and (b) each Bilateral Transaction scheduled Day-Ahead.

In the development of its SCUC schedule, the ISO may commit and decommit Generators and Demand Side Resources based upon any flexible Bids, including Minimum Generation and Start-Up Bids and Curtailment Initiation Cost Bids, Energy, and Incremental Bids and Decremental Bids received by the ISO.

The ISO will select the least cost mix of Ancillary Services and Energy Suppliers and Demand Side Resources. The ISO may substitute higher quality Ancillary Services (i.e., shorter response time) for lower quality Ancillary Services when doing so would result in an overall least bid cost solution. For example, 10-Minute Non-Synchronized Reserve may be substituted for 30-Minute Reserve if doing so would reduce the total bid cost of providing Energy and Ancillary Services.

After the Day-Ahead schedule is posted, the ISO shall ~~accept~~ GRANT requests from Capacity Limited and Energy Limited Resources for a reduction in their Day-Ahead schedule to their bid-in upper operating limit for hours scheduled above their bid-in upper operating limit, provided however, such capacity may be scheduled by BME or SCD, upon notice to the Supplier pursuant to ISO procedures, IN ORDER TO PREVENT OR ADDRESS AN EMERGENCY.

provide the Transmission Owner with the Load forecast (for seven (7) days) as well as the ISO security evaluation data to enable local area reliability to be assessed. A Transmission Owner may request commitment of additional Generators (including specific output level(s)) if it determines that additional generation is needed to ensure local area reliability in accordance with the Local Reliability Rules. The ISO will use SRE to fulfill a Transmission Owner's request for additional units. Any requests by Transmission Owners to commit generators not otherwise committed by the ISO in the Day-Ahead Market will be posted upon receipt on OASIS.

#### **4.12 Commitment for Local Reliability**

Generating units committed by the ISO for service to ensure local reliability will recover startup and minimum generation costs not recovered in the Dispatch Day. Payment for such costs shall be determined pursuant to the provisions of Attachment C. With the exception of Storm Watch, such payments shall be recovered by the ISO from the local customers for whose benefit the Generation was committed in accordance with Rate Schedule 1 of the ISO OATT. Payments made by the ISO to those Generators shall be in accordance with Attachment C.

#### **4.13 In-Day Scheduling Changes**

After the Day-Ahead schedule is published, the ISO shall evaluate any events, including, but not limited to, the loss of significant Generators or transmission facilities that may cause the

system dispatch to be inadequate to meet the requirements established in the Reliability Rules.

The ISO shall modify, as necessary, the Day-Ahead commitment schedules of Capacity Limited and Energy Limited Resources on notice to the Supplier and via SRE for other Suppliers to achieve a reliable next-day schedule while minimizing total Bid Production Cost over the remainder of the day to meet Load scheduled Day-Ahead. The ISO may use the following resources in order to prevent or address an Emergency: (i) Bids submitted to the ISO that were not previously accepted but were designated by the bidder as continuing to be available including bids from Capacity Limited or Energy Limited Resources to supply Energy above a bid-in upper operating limit not accepted for SCHEDULED IN the Day-Ahead MARKET; (ii) new Bids from all Suppliers, including neighboring systems; and (iii) cancellation of/or rescheduling of transmission facility maintenance outages when possible. Actions taken by the ISO in performing supplemental commitments will not change any financial commitments that resulted from the Day-Ahead SCUC.

The ISO will not recall Energy produced by a Generator serving External Load if that Generator is not providing Installed Capacity (and has not indicated that it wishes to qualify as a provider of Installed Capacity) in the NYCA, except that any transaction may be Curtailed in response to the invocation of Transmission Loading Relief procedures by the ISO or by operators of other Control Areas. Energy from non-Installed Capacity providers in New York which is being sold outside the NYCA could be purchased by the ISO, pursuant to ISO Procedures, should an emergency exist in the NYCA.

#### 4.14 Balancing Market Evaluation (Hour-Ahead)

After the Day-Ahead schedule is published, and up to ninety (90) minutes prior to each dispatch hour, Customers may: (i) submit additional Bids to the ISO for Energy from (a) Generators or other resources that are Dispatchable within five (5) minutes and that can be included in, and respond to, the ISO's SCD program and (b) Generators or other resources that provide fixed block Energy (non-Dispatchable) Bids available for the next hour; (ii) lower their Bid Price for Energy from Generators committed by the ISO in the Day-Ahead Market; (iii) change their Bid Price for additional Energy from Generators that were committed by the ISO in the Day-Ahead Market; (iv) propose new Bilateral Transactions; and (v) submit Bids to purchase Energy from the Real-Time Market. After the Day-Ahead schedule is published, and up to ninety (90) minutes prior to each dispatch hour, the ISO may, by notice to Capacity Limited Resources and Energy Limited Resources, and in response to a projected capacity or reserves shortage, or other IN ORDER TO PREVENT OR ADDRESS AN emergency, raise their upper operating limits to their maximum bid-in capacity and make this Energy available to the Balancing Market Evaluation for scheduling. The Bids submitted up to ninety (90) minutes before the dispatch hour shall be referred to as Hour-Ahead Bids. The ISO will use the Balancing Market Evaluation ("BME") to determine which Transactions, including External Transactions affecting the NYCA, are permitted in each hour. The ISO shall use the BME ninety (90) minutes before each dispatch hour to determine schedules for the Real-Time Market and Bilateral Transactions including Exports, Imports and Wheels

Through. In developing these schedules, the BME will consider updated Load forecasts and evaluate the impact on reliability of the proposed schedules and commitments. The BME will adjust firm Bilateral Transaction schedules based on Incremental Bids and Decremental Bids and all Generator schedules, based

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on their Bids, to maintain reliability. The BME will not determine any prices but will schedule on a least total Bid Production Cost basis. Minimum run-time Constraints will be honored by BME only until midnight of the Dispatch Day.

#### **4.15 ISO Real-Time Dispatch**

The ISO shall dispatch the NYS Power System consistent with the Bids that are submitted by Suppliers and accepted by the ISO, while satisfying the actual system Load.

On notice to Capacity Limited Resources and Energy Limited Resources, the ISO, in response to a projected capacity or reserves shortage, or other ORDER TO PREVENT OR ADDRESS AN emergency, may dispatch Energy above their bid-in upper operating limits. ~~not scheduled Day Ahead.~~

The ISO shall use Day-Ahead and Hour-Ahead Bids and shall accommodate Bilateral Transaction schedules and schedule changes to the maximum extent possible consistent with reliability and the Decremental Bids of Bilateral Transaction parties. The ISO shall run a SCD nominally every five (5) minutes to minimize the total Bid Production Costs of meeting the system Load and maintaining scheduled interchanges



with adjacent Control Areas over the next SCD interval. Bid Production Costs, for this purpose, will be calculated using accepted Day-Ahead and Hour-Ahead Bids submitted into the Real-Time Market. This dispatch may cause the schedules of Generators providing Energy under Bilateral Transaction schedules to be modified, depending upon the Decremental Bids submitted (or assigned) in association with these schedules.

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**B. Settlement When Actual Energy Injections are Less Than Scheduled Energy Injections or Actual Demand Reductions are Less Than Scheduled Demand Reductions**

When the actual Energy injections ~~from~~by a ~~Generator~~Supplier over an SCD interval ~~is~~are less than the Energy injections scheduled Day-Ahead over that SCD interval, the Supplier shall pay a charge for the Energy imbalance ~~in a charge~~ equal to the product of: (a) the Real-Time LBMP calculated in that SCD interval for the applicable Generator bus; and (b) the difference between the scheduled Day-Ahead Energy injections and the lesser of: (i) the actual Energy injections at that bus; or (ii) the ~~SCD Base Point Signals sent to the Supplier in that SCD interval's~~ Real-Time Scheduled Energy Injection plus any Compensable Overgeneration.

~~When a Capacity Limited Resource, other than an Energy Limited Resource, is scheduled to run in the DAM at a level above its bid in upper operating limit and the ISO reduces its schedule to its bid in upper operating limit, at the request of the Capacity Limited Resource, the Energy imbalance charge imposed upon it for the Hours its schedule has been so reduced shall be no greater~~

than the Day Ahead LBMP for Energy in that SCD

When an Energy Limited Resource is scheduled to run in the DAM at a level above its bid-in upper operating limit and the ISO, in response to a projected capacity or reserves shortage, or other emergency, reduces the Day-Ahead schedule to the bid-in upper operating limit for some hours, and increases the Day-Ahead schedule above the bid-in upper operating limit for other hours -the Energy imbalance charge imposed upon the Energy Limited Resource for the hours originally scheduled Day-Ahead, and reduced by the ISO, shall be no greater than the Day-Ahead LBMP for Energy in that SCD interval, provided however, if the ~~LBMP revenue~~ RECEIVED TOTAL MARGIN received by the Energy Limited Resource for the twenty-four (24) day is less than its Day-Ahead margin, the LBMP revenue shall be augmented by a supplemental payment, pursuant to ISO procedures. The Energy Limited Resource's TOTAL MARGIN IS EQUAL TO THE SUM OF THE DAY-HEAD REVENUE RECEIVED MINUS THE DAY-AHEAD BID IN EACH HOUR PLUS THE REAL-TIME REVENUE RECEIVED MINUS THE REAL-TIME BID FOR EACH HOUR. THE ENERGY LIMITED RESOURCE'S Day-Ahead margin is equal to the revenue it would have received for providing energy pursuant to its Day-Ahead schedule less its Bid to provide this Energy FOR THE SAME TWENTY-FOUR HOUR DAY.

When actual Demand Reduction from a Demand Reduction Provider that

is supplied from Local Generators over an hour is less than the Demand Reduction scheduled over that hour, the Demand Reduction Provider shall pay a Demand Reduction imbalance charge equal to the product of: (a) the Real-Time LBMP calculated for that hour for the applicable Demand Reduction bus; and (b) the difference between the scheduled Demand Reduction and the actual Demand Reduction at that bus in that hour.

When actual Demand Reduction from a Demand Reduction Provider, other than Demand Reduction supplied by Local Generators, over an hour is less than the Demand Reduction scheduled over that hour, the Demand Reduction Provider shall pay a Demand

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Reduction imbalance charge equal to the product of: (a) the higher of the Day-Ahead LBMP or the Real-Time LBMP calculated for that hour for the applicable Demand Reduction bus; (b) the difference between the scheduled Demand Reduction and the actual Demand Reduction at that bus in that hour; and (c) 1.10.

**C. Settlement When Actual Energy Withdrawals are Less Than Scheduled Energy Withdrawals**

When a Customer's Actual Energy Withdrawals over an SCD interval are less than its Energy withdrawals scheduled ~~Day Ahead~~ over that SCD interval, the Customer shall be paid the product of: (a) the Real-Time LBMP calculated in that SCD interval for each applicable Load Zone; and (b) the difference between the scheduled Energy withdrawals and the Actual Energy Withdrawals at that Load Zone.

**D. Settlement When Actual Energy Injections Exceed Scheduled Energy Injections**

When actual Energy injections from a Generator over an SCD interval exceeds the Energy injections scheduled ~~Day Ahead over the SCD interval~~ the Supplier shall be paid the product of: (1) the

Real-Time LBMP calculated in that SCD interval for the applicable Generator bus and (2) the difference between the scheduled Energy injections and the lesser of (i) the Supplier's actual Energy injections up to the SCD Base Point Signals sent to that Supplier by the ISO; injection or (ii) its Real-Time Scheduled Energy Injection for that SCD interval, plus any Compensable Overgeneration and the Supplier's scheduled Energy injection over the SCD interval, unless the payment that the Supplier would receive for such injections would be negative (i.e., unless the LBMP calculated in that SCD interval at the applicable Generator's bus is negative) in which case the Supplier shall be paid the product of: (1) the Real-Time LBMP calculated in that SCD interval for the applicable Generator bus and (2) the difference between the Supplier's actual Energy injection for that SCD interval and the Supplier's scheduled Energy injection over that SCD interval. Suppliers shall not be compensated for Energy in excess of the SCD Base Point Signals communicated by the ISO their Real-Time Scheduled Energy Injections, except: (i) for Compensable Overgeneration; (ii) when the ISO initiates a reserve pick-up, as provided for in the ISO Procedures, or (iii) when a Transmission Owner initiates a reserve pick-up in accordance with a Reliability Rule, including a Local Reliability Rule. When there is no reserve pick-up, or when there is a reserve pick-up but a Supplier is not located in the area affected by the reserve pick-up, that Supplier shall not be compensated for Energy in excess of the SCD Base Point Signal. The Supplier shall be paid based on the product of: (1) the its Real-Time LBMP in that SCD interval for the applicable Generator bus; and (2) the difference between (a) the lesser of (i) the actual Scheduled Energy injection or (ii) the SCD Base Point Signals sent to the Supplier in that interval, and (b)

~~the scheduled Energy injection~~Injection plus any Compensable Overgeneration. When there is a reserve pick-up and a Supplier is located in the area affected by the pick-up, and the Supplier was either scheduled to operate as a result of the BME or subsequently was directed to operate by the ISO, that Supplier shall be paid based on the

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External System Resources and Control Area System Resources which have agreed to certain Curtailment conditions as set forth in the last paragraph of Section 5.12.1 below, and other than Special Case Resources, existing municipally-owned generation, Energy Limited Resources, and Intermittent Power Resources, to the extent those entities are subject to the requirements of Section 5.12.11 of this Tariff, shall: (i) provide information reasonably requested by the ISO including the name and location of Generators, Interruptible Load Resources, and System Resources; (ii) in accordance with the ISO Procedures, perform DMNC tests and submit the results to the ISO, or provide to the ISO appropriate historical production data; (iii) abide by the ISO Generator maintenance coordination procedures; (iv) provide the expected return date from any outages (including partial outages) to the ISO; (v) provide documentation

demonstrating that it will not utilize the same Installed Capacity for more than one (1) buyer at the same time; (vi) except for Installed Capacity Marketers and Interruptible Load Resources, schedule Day-Ahead Bilateral Transactions to supply Load within the NYCA or Bid into the Day-Ahead Market, unless the Energy Limited Resource, Generator or System Resource is unable to do so due to a maintenance or forced outage or due to temperature related de-ratings.

Generators may also enter into the MIS an upper operating limit that would define the operating limit under normal system conditions; (vii)

if the resource is an Interruptible Load Resource, it must commit that it will Bid, at the price at which it is willing to be interrupted, in the Day-Ahead Market, for both Energy and Operating Reserves; (viii) provide Operating Data in accordance with Section 5.12.5 of this Tariff; (ix) comply with the ISO Procedures; (x) when the ISO issues a Supplemental Resource Evaluation request (an SRE), Bid into the in-day market unless the entity has a Bid pending in the Hour-Ahead Market when the SRE request is made or is unable to Bid in response to the SRE request due to a maintenance outage or forced outage, or due to other operational issues , or due to temperature related deratings; and (xi) Installed Capacity Suppliers located east of the central-east constraint shall Bid in the Day-Ahead and Real-Time Markets all Capacity available for supplying Spinning Reserves or 10-Minute Non-Spinning Reserve (NSR) (unless the Generator is unable to meet its commitment because of a scheduled or forced outage), except for the Generators described in subsections (a), (b), (c) and (d) below:

**5.12.11 (c) Energy Limited Resources**

An Energy Limited Resource may qualify as an Installed Capacity Supplier if it Bids its Installed Capacity into the Day-Ahead Market each day and if it is able to provide the Energy equivalent of the Installed Capacity for at least four (4) hours each day. Energy Limited Resources shall also Bid an upper operating limit, designating desired operating limits. Energy Limited Resources not scheduled in the Day-Ahead Market to operate at a level above their bid-in upper operating limit, may be scheduled Hour-Ahead, or may be called in Real-Time, pursuant to a manual intervention by ISO dispatchers recognizing that the Energy Limited Resource may not be capable of responding.

**5.12.11(d) Intermittent Power Resources**

Intermittent Power Resources may qualify as Installed Capacity Suppliers, without having to comply with the daily bidding and scheduling requirements set forth in Section 5.12.7 of this Tariff, and may claim up to their Installed Capacity. To qualify as Installed Capacity Suppliers, Intermittent Power Resources shall comply with the notification requirements of Section 5.12.7 of this Tariff.